

10. *Action of Aconitum Napellus.*—M. TEISSIER, of Lyons, has conducted a series of experiments on the *aconitum napellus*, with the view of studying its stupefying and antiphlogistic actions. The stupefying action is undoubted; it differs from that of morphia, the influence of which is perceptible in more or less relieving all kinds of pain; aconite, on the contrary, has power only over special pains. This specialty of action of the aconite is one of its principal characters, and it results from the fact that the stupefying property of this medicine is only secondary: its principal, and in some sort specific, action is exerted on the skin; it consists in eliminating the noxious elements from the vessels of that membrane, and in re-establishing its functions, when they have been disturbed either by the repercussion of the perspiration or by the presence of any virus. Thus, aconite is adapted for the treatment of diseases caused by cold, the consequences of catarrhs, and also of the diseases in which a morbid principle is retained in the cutaneous tissue, such as the exanthematous fevers. The painful diseases in which M. Teissier has obtained benefit from the sedative action of aconite, are those depending on a catarrhal or rheumatic cause. The antiphlogistic action of the plant is quite secondary and subordinate to its action on the skin.—*Journ. Psychol. Med.*, Oct. 1849, from *Révue Médicale*.

11. *Galvanic Apparatus for applying Chloride of Zinc as a Counter-Irritant.*—Dr. THOMAS SMITH states (*Lond. Journ. of Medicine*, Sept. 1849) that, for the last two or three years, he has been in the habit of using galvanism as a counter-irritant, finding it less painful than moxas, setons, issues, &c. He gives the following description of the apparatus he employs and his method of using it:—

“A piece of perforated zinc is fastened or riveted to a piece of platinized silver, or, what will do equally as well, and which I generally use, a sixpence, shilling, or half-crown, according to the size required. The apparatus thus prepared is to be applied with the zinc surface next to the body, the silver being uppermost; over this, I place a piece of spongio-piline, previously moistened in salt and water, and retain the whole in close apposition to the skin, by means of a few strips of adhesive plaster. At the expiration of every twelve hours, the battery should be removed and washed in salt and water, and then reapplied as before. At the end of twelve days, a deep white eschar is formed, from the action of the chloride of zinc. This may easily be detached, or allowed to slough out of itself, which generally happens about the fifteenth day, leaving a healthy-looking sore. By reversing the galvanic apparatus, that is, applying the silvered surface to the wound, it will be found to heal up quickly; or it may be made to keep up a continuous discharge, by introducing split peas into the opening, or by dressing it night and morning with savine cerate. Where, however, time is an object, and it is desirable quickly to induce counter-irritation, this may easily and speedily be effected by first removing the cuticle, either by means of liquor ammoniæ fortissimus, or of acetum cantharidis, and then applying the battery to the denuded surface, and afterwards proceeding as in the former case. In this manner, the same effects are produced, in from four to six days, as would require twelve days by the other method. If the latter plan be adopted, it is not uncommon for the patient to complain of a gnawing pain in the part towards the evening of the third day, which, if not relieved, makes him restless and uncomfortable; a mild opiate, administered at bedtime, has generally had the effect of soothing the irritation, and preventing its future occurrence. In delicate females, where it is desirable not to create more pain than is absolutely necessary for the induction of counter-irritation, the first plan is decidedly preferable. I have observed, on three occasions, where the idiosyncrasy of the patient had previously rendered the exhibition of opium or its preparations inadmissible, that, during the action of the battery, they have produced the most tranquillizing effects. Acting upon this inference, would it not be well, in such constitutions as are known to be susceptible to injurious impressions from a dose of any opiate, previously to irritate the cuticular surface by electricity or galvanism?”

Dr. S. does not attach much importance to the galvanic action produced by the apparatus, but merely recommends it as being an excellent substitute where the more formidable remedies, such as potassa fusa, moxa, or the potential

cautery, may be objected to on account of the suffering they entail, and which, in some constitutions, is an insuperable bar to their use.

#### MEDICAL PATHOLOGY AND THERAPEUTICS, AND PRACTICAL MEDICINE.

12. *On the Comparative Pathology of the Different Races of Men.*—M. Boudin has for some considerable time been engaged in furnishing statistical proof of the erroneousness of the doctrines of acclimatization, which suppose that long residence habituates men to climates otherwise unfitted for them. He has brought forward, in his various communications, of which this forms one, ample proof of the little success and the great mortality that have attended the attempts at the colonization of Algeria. In the same way, the European has always failed in fixing himself in Egypt, and the French cannot propagate their race in Corsica. He pays a well-deserved compliment to the British government for having availed itself of a knowledge of these deleterious influences, in the more judicious distribution of its troops in recent times. Thus, by adding to the British troops auxiliaries recruited among races whose physiological and political aptitudes suited them to the respective climates, by selecting for the European troops serving in warm climates the most elevated regions, and by shortening the time of service abroad, it has effected a remarkable diminution of mortality—a diminution which, in the most unhealthy possessions, has amounted even to fifty per cent. He contrasts this with the large mortality which still prevails among the French troops serving in analogous regions. The differences of the comparative mortality of the different races placed under different circumstances, is seen by examining that of the white and the negro population. Thus, while at Philadelphia the mortality of the whites is 24 per 1000, that of the negroes is 47; that of the whites 10 years old and upwards being, at New York, 15 per 1000, that of the negroes 26. At the Eastern Penitentiary, 20 per 1000 whites and 70 blacks die; while at Weathersfield, the numbers are 28 and 100 respectively; and the same enormous disproportion is observed in other prisons. The great mortality is especially due in the negro tribes to phthisis and typhus; while the negro is so proof against malaria, which carries off so many whites, that a due observation of this fact has enabled the British government to diminish wonderfully the mortality of their troops employed in the East and West Indies. In the West Indies, the mortality of the negro soldier, compared to the white one, is but as 40 to 78 per 1000; and in Sierra Leone, it is 16 times less than that of the white. The latter are 160 times more fatally affected by fevers than the negro; and it is only in diseases of the chest that they enjoy a somewhat greater immunity (4.9 to 6.3 per 1000). Even in the most southern station in Europe, Gibraltar, however, the negro mortality (62) greatly exceeds that of the white soldiers (21.4), though these are also strangers to the soil—the diseases of the chest in the negro amounting to 43 per 1000.

In respect to the *Sepoys*, their mortality, at the different stations, is three or four times less than that of the English soldier; and they enjoy a remarkable immunity from diseases of the chest and liver, but are more prone to dropsies, owing to the endemic prevalence of the *beriberi*. The mortality of the *Hottentot* soldier at the Cape is very small, half of the deaths arising from diseases of the digestive organs. They, too, are more prone to diseases of the chest than the white soldier. Many facts tend to show that the *Jews*, even amidst wide-spreading pestilences, have enjoyed great immunities; and that they pre-eminently possess the power of acclimatization.

M. Boudin concludes the present paper with some observations on the diseases and mortality of the *war-horse*. In 1845, of an effective force of 33,618 horses, the French cavalry lost by death 2603, and by discharge 2511. Of an effective force of 41,793, in 1846, 2679 died, and 3314 were discharged. While the general loss by death and dismissal, in France, was 143 per 1000, it was in Algeria 240. In 1836, the mean annual mortality was 197 per 1000; 126 in 1841; 108 in 1842;